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STEP

AUTHOR: (8) Wang, Yung-shu (3769/3057/2579)

TITLE: (6) Rolling iron powder into steel

PERIODICAL: (15) K'o Hsüeh Hua Pao, no. 6, 1960, 208-209 (pp.)

TEXT: A new metallurgical process has been developed by which iron powder can be rolled directly into steel tape. The process includes the following steps: (1) preparation of iron powder, (2) cold rolling, (3) sintering, (4) rerolling, (5) chemical treatment, and (6) winding the tape on a reel. The quality of the iron powder used determines the quality of the steel tape. The making of iron powder directly from ore has been achieved in the USSR. The excessive amount of material used in the first rough rolling may result in cracks due to expansion in the heating process. The sintering temperature is usually 1100-1200°C. After sintering, chemical processes may be made as desired. The major advantages of this method lie in economy of production costs, simplicity of process, and better quality. In many foreign countries this method has already been adopted for making copper tape, nickel tape, aluminum tape, stainless steel tape, and materials for atomic piles such as uranium and thorium. There are 3 figures.

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